

A NEW SPECIES AND NEW RECORDS OF SISYRIDAE (NEUROPTERA) FROM AUSTRALIA

By C. N. Smithers

The Australian Museum, College St., Sydney

Introduction

There are very few records of Sisyridae (Neuroptera) (Spongillaflies) from Australia. Recent collecting has provided fresh material of known species and of a new species of *Sisyrina* Banks, a genus previously known only from one species from India (*S. nirvana* Banks). The occurrence of this genus in tropical Australia is, therefore, interesting and the other new material listed here extends the known ranges of species concerned.

The larvae of Sisyrids are found in association with fresh water sponges and the adults occur on vegetation along river banks where the sponges occur.

Sisyra brunnea Banks

New Material: QUEENSLAND: 1 ♂, Claudie River, near Mt. Lamond, 5.vi.1966 (D. K. McAlpine); 2 ♂, 3 ♀, Mulgrave River, about 4 miles west of Gordonvale, 2.i.1967 (D. K. McAlpine); 16 ♂, 13 ♀, Ross and Locke Picnic area, Mulgrave River, about 4 miles west of Gordonvale, 19.xii.1972 (C. N. Smithers and J. V. Peters). Two larvae taken at the same time from fresh water sponges in the river possibly belong to this species (C. N. Smithers and A. Tregenza).

Previous records: Kuranda and Brisbane (Banks, 1909); Cedar Creek (Esben-Petersen, 1918).

Sisyra rufistigma Tillyard

New Material: NEW SOUTH WALES: 3 ♂, 2 ♀, Cootes Crossing, Orara River, 26.viii.1961 (C. N. and A. S. Smithers); 1 ♀, Royal National Park, 29.ix.1968 (C. N. Smithers); 2 ♀, Apsley Falls, 19.i.1971 (C. N. Smithers).

Previous record: National Park (Tillyard, 1916).

Discussion: Esben-Petersen (1918, p. 31) synonymised *Sisyra rufistigma* with *S. brunnea*. Handschin (1935) accepted this synonymy. It seems likely, however, that Tillyard's *S. rufistigma* is distinct from *S. brunnea*. *S. brunnea* has the flagellum of the antennae bicoloured and has dark streaks running through the cells parallel to the veins whereas *S. rufistigma* has the veins partly bordered with faint colour and has the flagellum of the antennae of one colour. Until the types of these two species can be compared and their synonymity confirmed I prefer to regard them as distinct species.

Sisyra esbenpeterseni Handschin

New Material: NORTHERN TERRITORY: 1 ♀, Jim Jim Waterhole, 28.viii.1970 (J. V. Peters).

Previous record: "Northern Australia" (Handschin, 1935).

Sisyra punctata Banks

New material: QUEENSLAND: 1 ♀, in riverine forest, Rocky River, 15-19.vi.1960 (C. N. Smithers).

Previous records: "Bundaberg district, Middle Queensland" (Banks, 1909); Burnside Station, Northern Territory (Handschin, 1935).

Sisyra turneri Tillyard

New material: NEW SOUTH WALES: 2 ♂, Shoalhaven River, near Braidwood, 26-30.xi.1962 (C. N. and A. S. Smithers); 21 ♂, 16 ♀, same locality, 2.xii.1960 (C. N. Smithers).

Previous record: Armidale, at 3,300 feet (Tillyard, 1916).

Sisyra tropica sp. n.

DESCRIPTION

Coloration (in alcohol). Vertex shiny brown; median epicranial suture almost black, paler diverging lines run from anterior margin; meet compound eyes just behind antennae bases; head anterior to antennae pale yellowish brown with black hairs. Palps brown. Eyes black. Antennae with first eight segments black, more distal segments creamy yellow. Thorax dorsally brown, sutures bordered with pale brown. Prothoracic legs pale creamy yellow. Meso- and metathoracic legs as prothoracic but with basal halves of femora brownish. Fore wings tinged with brown, a poorly defined, longitudinal darker band in each cell. Veins very dark brown. Abdomen brown, terminal structures in male very dark.

Morphology. Length of body: 3 mm. Vertex with very few forwardly directed setae. Frons with a few larger forwardly directed setae between antenna bases. Fore wing length: 3.5 mm.; width: 1.1 mm. Venation of fore wings: nine costal veinlets before pterostigma. Three cross veins between R_1 and R_s , all entire; two sectorial crossveins, one between R_2 and R_3 and one between R_3 and R_{4+5} , both broken; two radio-medial crossveins, the first just distad to the $R_3 - R_{4+5}$ bifurcation, entire, the second, in the outer gradate series, broken; two crossveins between MA and MP , a small one at the basal third of the wing and a distal, broken one in the outer gradate series; one crossvein, broken, in the outer gradate series between MP_{1+2} and MP_{3+4} ; two entire crossveins between MP and Cu_1 and one, entire, between Cu_1 and Cu_2 . Hind wing length: 3.1 mm.; width 1.3 mm. Venation of hind wings: costal area with about six veinlets; outer gradate series with $R_1 - R_2$ and $MP - Cu_1$ crossveins entire, others broken; proximal $MA - MP$ crossvein evanescent. Terminal structures of male (fig. 1). Terminal structures of female (fig. 3).

Material examined: QUEENSLAND: 1 ♂ (holotype), near Lake Plover, 19.xii.1972 (C. N. Smithers and J. V. Peters); 1 ♀ (allotype) Kurrajong, 27.xii.1958 (D. K. McAlpine); 1 ♂, Barratt Creek, near Dalrymple, 16.xii.1972 (C. N. Smithers and J. V. Peters); 1 ♂, Mulgrave River, about 4 miles west of Gordonvale, 19.xii.1972 (C. N. Smithers and J. V. Peters). Holotype, allotype and paratype in the Australian Museum.

DISCUSSION:

A type and paratype of *S. nirvana* Banks have been examined. *Sisyra tropica* is very closely related to *S. nirvana* Banks from the only other species described in the genus. *S. tropica* is dark appearing almost black in the field; the form of the male clasper is different in lateral view (figs. 1 and 2), being more strongly narrow

distad of the large ventral spine and having a more sinuous dorsal margin in *S. tropica*. The parameres are distally incurved whereas those of *S. nirvana* are straight throughout their length and narrower than in *S. tropica*. The ninth tergite and sternite in the females differ somewhat in proportion in the two species (see figs. 3 and 4).

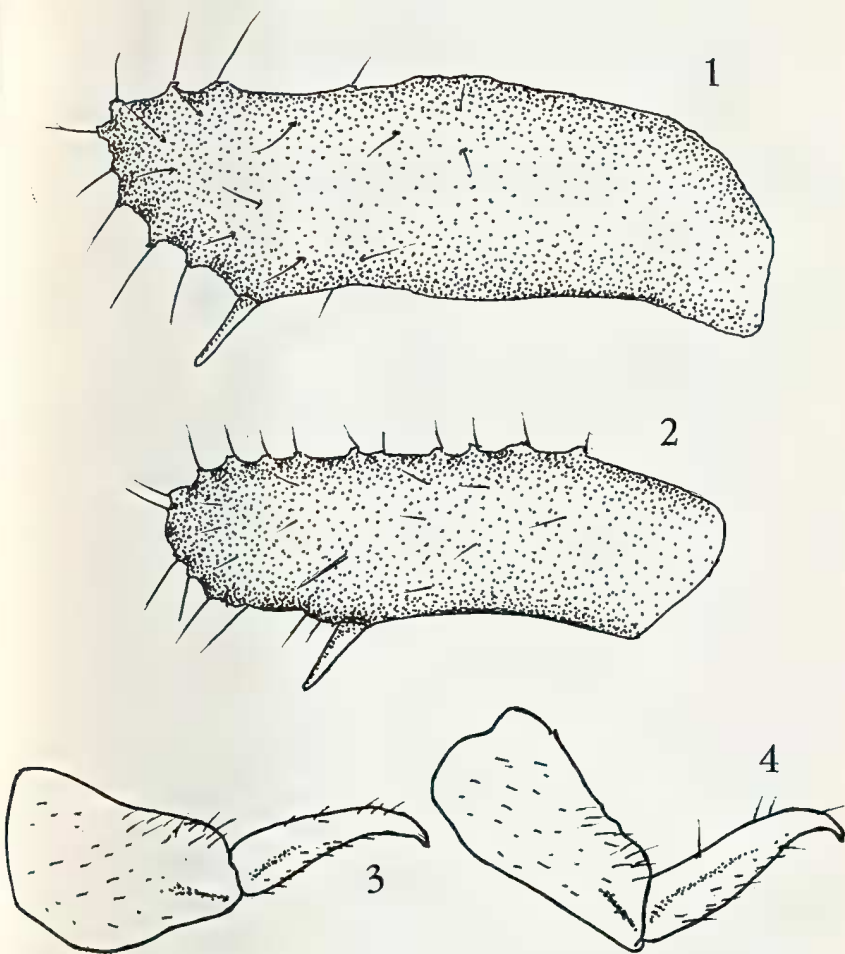


Figure 1. *Sisyrina tropica* ♂, right clasper, lateral view, type.

Figure 2. *Sisyrina nirvana*, same.

Figure 3. *Sisyrina tropica* ♀, ninth tergite and sternite, allotype.

Figure 4. *Sisyrina nirvana*, same, paratype.

Acknowledgement

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References

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BOOK REVIEW

A Label Check List of the Australian Butterflies. M. S. Moulds and J. V. Peters. Australian Entomological Press, Sydney. Pub. 19th October 1972. 25 pages 25 mm x 19 mm, 1 plate. \$1.20.

This publication is the first systematic label list of Australian butterflies. Published in conjunction with, and primarily based on the authoritative and comprehensive *Butterflies of Australia* by I. F. B. Common and D. F. Waterhouse, the list provides a reference for current nomenclature and satisfies a demand for a standardised label for both amateur and professional collection.

Following a forward the book includes a diagram suggesting a suitable layout for labelling a collection and an index to the genera. Then follows seventeen pages of 40 mm x 20 mm labels listing 170 species of butterfly from Australia, Tasmania, the islands of Torres Strait, Lord Howe Island and Norfolk Island. The subspecies are arranged geographically and listed clock-wise from the Northern Territory to Western Australia. The publication is completed with five pages of labels designed to be cut from the book.

Moulds and Peters have produced a carefully compiled list of butterflies forming to up to date nomenclature and taxonomic treatments. Labels are provided for each taxonomic category in a very systematic manner and the author of each genus, species and subspecies is included, though the date of publication is omitted. The standard of printing is adequate but examples of blotched or faint print can be found on some pages. The printers ink, unfortunately, can be smudged, which could be hazardous when transferring the labels to the collection.

Although the authors have closely followed Common and Waterhouse to produce this publication they have, notably, included *Papilio ilioneus* Donovan from Norfolk Island. The addition of *Papilio ilioneus* Donovan from this island correctly refutes the belief of D'Abbrera that this insect is a race of *Papilio amyntor* Boisduval.

Whilst the list omits the sometimes cumbersome seasonal polymorphic forms of Australian butterflies, their subspecific forms are treated with thoroughness. One anomaly, however, is the inclusion of *Catopsilia gorgophone gorgophone* (Bois.) as a race of *Catopsilia gorgophone*.

A Label Check List of the Australian Butterflies is a practical and important contribution to present day literature on Lepidoptera. It will be invaluable to the amateur and professional collector as a catalogue and reference as well as a means of labelling a collection.